ABB10010P0440US (OZ-49500)

Applicants have amended claims 1-3 to delete any reference to NR²²R²³. Accordingly, this rejection should be withdrawn.

The Office Action rejected clams 1-26 under 35 U.S.C. §112, second paragraph, as being indefinite, on various grounds. Applicants have amended claims 1, 2, 3, 6, 8 and 23 to address each point raised in the Office Action. Accordingly, this rejection should be withdrawn.

Favorable consideration and allowance of claims 1-26, as presently amended, is respectfully requested.

If any additional fees are incurred as a result of the filing of this paper, authorization is given to charge Deposit Account Number 23-0785.

Respectfully submitted,

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Date: June 12, 2003

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Marked-Up Version of Claims

Please amend claim 1 as follows:

1. (amended) A compound of the formula I or II

NH₂
N R¹
N R³

in which

- is hydrogen, or branched and unbranched C_1 - C_6 -alkyl, it also being possible for one C atom of the alkyl radical to carry OR^{11} or a group R^5 , where R^{11} is hydrogen or C_1 - C_4 -alkyl, and
- is hydrogen, chlorine, bromine, iodine, fluorine, CF3, nitro, NHCOR²¹, [NR²²R²³,] OH, O-C₁-C₄-alkyl, O-C₁-C₄-alkylphenyl, NH₂, CN, a straight or branched C₁, C₆-alkyl, OR²¹ or phenyl, it also being possible for the phenyl rings to be substituted by at most two radicals R²⁴, and R²¹ [and R²² independently of one another are] is hydrogen or C₁-C₄-alkyl [and R²³ is hydrogen, C₁-C₄-alkyl or phenyl], and R²⁴ is OH, C₁-C₆,-alkyl, O-C₁-C₄-alkyl, chlorine, bromine, iodine, fluorine, CF₃, nitro or NH₂, and
- x may be O, 1 or 2 and
- R³ is $-O-(CH_2)_0-(CHR^{31})_m-(CH_2)_n-G$, where R³¹ is hydrogen, OH, C_1-C_4 alkyl, or $O-C_1-C_4-C_4$ alkyl, m and o are, independently of one another, 0, 1 or 2 and n is 1, 2, 3 or 4,

-D- $(F^1)_p$ - $(E)_q$,- $(F^2)_r$, -G, where p, q and r may not simultaneously be 0, or is -E- $(D)_u$ - $(F^2)_8$ - $(G)_v$, it also being possible for the radical E to be substituted by one or two radicals A, and if v = 0, E is imidazole, pyrrole, pyridine, pyrimidine, piperazine, pyrazine, pyrrolidine or piperidine, or R^3 is B and

- R^4 is hydrogen, chlorine, fluorine, bromine, iodine, branched and unbranched C_1 - C_6 -alkyl, OH, nitro, CF_3 , CN, $NR^{41}R^{42}$, NH-CO- R^{43} , or O- C_1 - C_4 -alkyl, where R^{41} and R^{42} independently of one another are hydrogen or C_1 - C_4 -alkyl
- and R⁴³ is hydrogen, C₁-C₄-alkyl, C₁-C₄-alkylphenyl or phenyl, and
- D is S or 0
- E is phenyl, imidazole, pyrrole, thiophene, pyridine, pyrimidine, piperazine, pyrazine, furan,

thiazole, isoxazole, pyrrolidine, pipendine, or trihydroazepine and

- F^1 is a chain of 1 to 8 carbon atoms, it, also being possible for one carbon atom of the chain to carry an OH or O-C₁-C₄-alkyl group and
- F^2 is a chain of 1. to 8 carbon atoms, it also being possible for one carbon atom of the chain to carry an OH or O-C₁-C₄-alkyl group and
- p may be 0 or 1
- q may be 0 or 1, and
- r may be 0 or 1 and
- s may be 0 or 1
- u may be 0 or I
- v may be 0 or 1
- G may be NR⁵¹R⁵² or

[and] where

- R⁵¹ is hydrogen or branched. and unbranched C₁-C₆-alkyl, or (CH₂)_t-K and
- R⁵² is hydrogen, branched and unbranched C₁-C₆-alkyl, phenyl, <u>COCH₃, COCF₃</u>

in which

may be branched or unbranched O-C₁-C₆-alkyl, phenyl, or branched or unbranched C₁-C₄-alkylphenyl, where in the case of R⁵² and R⁵³, independently of one another, one hydrogen of the C₁-C₆-alkyl radical may be substituted by one of the following radicals: OH, O-C₁-C₄-alkyl, cyclohexyl, cyclopentyl, tetrahydronaphthyl, cyclopropyl, cyclobutyl, cycloheptyl, naphthyl and phenyl, it also being. possible for the carbocycles of the radicals R⁵² and R⁵³ independently of one another to carry one or two of the following radicals: branched or unbranched C₁-C₆-alkyl, branched or unbranched O-C₁-C₄-alkyl, OH, F, Cl, Br, 1, CF₃, NO₂, NH₂, CN, COOH, COOC₁-C₄-alkyl, C₁-C₄ alkylarnino, CCl₃, C₁,-C₄-dialkylamino, SO₂-C₁-C₄-alkyl, SO₂phenyl, CONH₂, CONH-C₁-C₄-alkyl, CONHphenyl, CONH-

$$\begin{array}{c|c} O & O \\ \hline \\ -O & \\ \end{array} \\ \begin{array}{c} C_1-C_4-alkyl, \\ -O & \\ \end{array} \\ \begin{array}{c} C_0-C_4-alkylphenyl, \\ \end{array}$$

 $C_1\text{-}C_4\text{-}alkylphenyl, NHSO_2\text{-}C_1\text{-}C_4\text{-}alkyl, NHSO_2phenyl, S-}C_1\text{-}C_4\text{-}alkyl, NHSO_2phenyl, S-}C_1\text{-}C_4\text{-}alkylphenyl, NHSO_2phenyl, NHSO_2phenyl, S-}C_1\text{-}C_4\text{-}alkylphenyl, NHSO_2phenylphenyl, S-}C_1\text{-}C_4\text{-}alkylphenyl$

CHO, CH₂-O-C₁-C₄-alkyl, -CH₂O-C₁-C₄-alkylphenyl, -CH₂OH, -SO-C₁-C₄-alkylphenyl, -SO₂NH₂, -SO₂NH- C₁-C₄-alkyl

or two radicals form a bridge -O-(CH₂)_{1,2}-O-,

B may be

and

A may be hydrogen, chlorine, bromine, iodine, fluorine, CF_3 , nitro, OH, $O-C_1-C_4$ -alkyl, $O-C_1-C_4$ -alkylphenyl, NH_2 , branched and unbranched C_1-C_6 -alkyl, CN, or $NH-CO-R^{33}$, where R^{33} is hydrogen, C_1-C_4 -alkyl or phenyl and

t is 0, 1, 2, 3[,] or 4 and

is [a] phenyl, [which may carry at most two radicals R is] $NR^{k_1}R^{k_2}$ where R^{k_1} and R^{k_2} are as defined for R^{4_1} and R^{4_2} respectively, $NH-C_1-C_4$ -alkylphenyl, pyrrolidine, piperidine, 1, 2, 5, 6-tetrahydropyridine, morpholine, trihydroazepine, piperazine, which may also be substituted by an alkyl radical C_1-C_6 -alkyl, or homopiperazine, which may also be substituted by an alkyl radical C_1-C_6 -alkyl, and C_4 -alkylphenyl, pyrrolidine, piperidine, 1,2, 5, 6-tetrahydropyridine, morpholine, trihydroazepine, piperazine, which may also be substituted by an alkyl radical C_1-C_6 -alkyl, or homopiperazine, which may also be substituted by an alkyl radical C_1-C_6 -alkyl, and

 R^5 may be hydrogen, C_1 - C_6 -alkyl, or NR^7R^9 and

and

- R^7 is hydrogen, C_1 - C_6 -alkyl, C_1 - C_4 -alkylphenyl, or phenyl, it also being possible for the rings to be substituted by up to two radicals R^{71} , and
- R⁷¹ is OH, C₁-C₆-alkyl, O-C₁-C₄-alkyl, chlorine, bromine, iodine, fluorine, CF₃, nitro, or NH₂, and
- R^8 is hydrogen, C_1 - C_6 -alkyl, phenyl, or Cl- C_4 -alkylphenyl, it also being possible for the ring to be substituted by up to two radicals R^{81} , and
- R⁸¹ is OH, C₁-C₆-alkyl, O-C₁-C₄-alkyl, chlorine, bromine, iodine, fluorine, CF₃, nitro, or NH₂ and
- is hydrogen, COCH₃, CO-O-C₁-C₄-alkyl, COCF₃, branched and unbranched C₁-C₆-alkyl, it being possible for one or two hydrogens of the C₁-C₆-alky radical to be substituted in each case by one of the following radicals: OH, O-C₁-C₄-alkyl and phenyl, and for the phenyl ring also to carry one or two of the following radicals: iodine, chlorine, bromine, fluorine, branched and unbranched C₁-C₆-alkyl, nitro, amino, C₁-C₄-alkylamino, C₁-C4-dialkylamino, OH, O-C₁-C₄-alkyl, CN, CF₃, or SO₂-C₁-C₄-alkyl,

or a tautomeric form, a possible enantiomeric or disasteriomeric form, a prodrug or

pharmacologically tolerated salt thereof.

Please amend claim 2 as follows:

- 2. (amended) A compound of the formula I or II as claimed in claim 1 in which
- R¹ is hydrogen, branched and unbranched CI-C6-alkyl, it also being possible for one C atom of the alkyl radical to carry OR¹¹ or a group R⁵, where
- R¹¹ is hydrogen or C₁-C₄-alkyl, and
- R^2 is hydrogen, chlorine, fluorine, bromine, iodine, branched and unbranched C_1 - C_6 -alkyl, nitro, CF_3 , CN, $[NR^{22}R^{23},]$ NH-CO- R^{21} , OR^{21} , where
- R²¹ [and R²² are, independently of one another,] is hydrogen or C₁-C₄-alkyl, and
- [R²³ is hydrogen,C₁-C₄-alkyl or phenyl, and]
- R^3 is -O-(CH₂)_o-(CHR³¹)_m-(CH₂)_n-G, where
- R³¹ is hydrogen, OH [and] or O-C₁-C₄-alkyl,
- m, o are, independently of one another, 0, 1 or 2, and
- n is 1, 2, 3 or 4 and
- R^4 is hydrogen, branched and unbranched C_1 - C_6 -alkyl, chlorine, bromine, fluorine, nitro, cyano, $NR^{41}R^{42}$, NH-CO- R^{43} , OR^{41} where
- R⁴¹ and R⁴² are, independently of one another, hydrogen or C₁-C₄-alkyl, and
- R⁴³ is Cl-C4-alkyl or phenyl, and
- G is $NR^{51}R^{52}$ or one of the following radicals

where

 R^{53}

 R^{51} is hydrogen [and] or branched and unbranched C_1 - C_6 alkyl, and

 R^{52} is hydrogen, branched and unbranched C_1 - C_6 -alkyl phenyl,

is branched or unbranched O-C₁-C₆-alkyl, phenyl, branched or unbranched C₁-C₄-alkyl-phenyl, where one hydrogen in the C₁-C₆-alkyl radical in R⁵² and R⁵³ are, independently of one another, optionally substituted by one of the following radicals: OH, O-C₁-C₄-alkyl, cyclohexyl, cyclopentyl, tetrahydronaphthyl, cyclopropyl, cyclobutyl, cycloheptyl, napthyl and phenyl, where the carbocycles of the R⁵² and R⁵³ radicals may also, independently of one another, carry one or two of the following radicals: branched or unbranched C₁-C₆-alkyl, branched or unbranched O-C₁-C₄-alkyl, OH, F, C₁, Br, 1, CF₃, NO₂, NH₂, CN, COOH, COOC₁-C₄-alkyl, C₁-C₄-alkylamino, CCl₃, C₁-C₄-dialkylamino, SO₂-C₁-C₄-alkyl, SO₂ phenyl, CONH-C₁-C₄ alkyl, CONHphenyl, CONH-C₁-C₄-alkyl-phenyl, NHSO₂-C₁-C₄-alkyl, NHSO₂phenyl, S-C₁-C₄-alkyl,

$$\begin{array}{c|c}
0 & 0 \\
\hline
 & C_1-C_4-alkyl, -0 \\
\end{array}$$

$$\begin{array}{c|c}
C_0-C_4-alkylphenyl,
\end{array}$$

CHO, CH_2 -O- C_1 - C_4 -alkyl, - CH_2 O- C_1 - C_4 -alkyl-phenyl, - CH_2 OH, -SO- C_1 - C_4 -alkyl, -SO- C_1 - C_4 -alkyl-phenyl, SO₂NH₂, -SO₂NH- C_1 - C_4 -alkyl [and] or two radicals form a bridge -O-(CH_2)_{1,2}-O-,

or a tautomeric form, a possible enantiomeric or. disasteriomeric form, a prodrug or pharmacologically tolerated salt thereof.

Please amend claim 3 as follows:

- 3. (amended) A compound of the formula I or II as claimed in claim 1 in which
- R^1 is hydrogen, branched and unbranched C_1 - C_6 -alkyl, it also being possible for one C atom of the alkyl radical to carry OR^{11} or a group R^5 , where
- R^{11} is hydrogen or C_1 - C_4 -alkyl, and
- R^2 is hydrogen, chlorine, fluorine, bromine, iodine, branched and unbranched C_1 - C_6 -alkyl, nitro, CF_3 , CN, $NR^{22}R^{23}$, NH-CO- R^{21} , OR^{21} , where
- R^{21} and R^{22} $\;\;$ independently of one another are hydrogen or $C_l\hbox{-} C_4\hbox{-alkyl and}$
- R²³ is hydrogen, C₁-C₄ alkyl or phenyl

 \mathbb{R}^3 is

$$-N$$
 Or N N R^{32} R^{32} R^{32}

and

is hydrogen and $-(CH_2)_0-(CHR^{31})_m-(CH_2)_n$ -G where R^{31} is hydrogen, C_1-C_4 -alkyl, OH and C_1-C_4 -alkyl, m, o independently of one another are u, 1 or 2 and n is 1, 2, 3 or 4, and

 R^4 is hydrogen, branched and unbranched C_1 - C_6 -alkyl, chlorine, bromine, fluorine, nitro, cyano, $NR^{41}R^{42}$, NH-CO- R^{43} , OR^{41} , where

R⁴¹ and R⁴² independently of one another are hydrogen or C₁-C₄-alkyl and

 R^{43} is C_1 - C_4 -alkyl or phenyl, and,

G is NR⁵¹R⁵² or one of the radicals below

where

R⁵¹ is hydrogen and branched and unbranched and C₁-C₆-alkyl and

R⁵² is hydrogen, COCH₃, CO-O-C₁-C₄-alkyl, COCF₃, branched and unbranched C₁-C₆-alkyl,it

being possible for one hydrogen of the C_1 - C_6 -alkyl radical to be substituted by one of the following radicals: OH, O- C_1 - C_4 -alkyl and phenyl and for the phenyl ring also to carry one or two of the following radicals: chlorine, bromine, fluorine, branched and unbranched C_1 - C_4 -alkyl, nitro, amino, C_1 - C_4 -alkylamino, C_1 - C_4 -dialkylamino, OH, O- C_1 - C_4 -alkyl, CN, SO₂- C_1 - C_4 -alkyl,

or a tautomeric form, a possible enantiomeric or disasteriomeric form, a prodrug or pharmacologically tolerated salt thereof.

Please amend claim 6 as follows:

- 6. (amended) A compound as claimed in claim 1, where
- R² is hydrogen, branched or unbranched C₁-C₆-alkyl, nitro, CN, NH₂, or O-C₁-C₄-alkyl.

Please amend claim 8 as follows:

8. (amended) A compound as claimed in claim 1, where R^3 is $-D(F^1)_p-(E)_q-(F^2)_r-G$ where D is $[0] \ \underline{O}$, F1 is a C_1-C_4 carbon chain, p is 1, q is 0 and r is 0.

Please amend claim 23 as follows:

23. (amended) The method as claimed in claim 11 wherein the disorder is a tumor or metasis [I] thereof.